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EXAMINER
GLASS, M

ART UNIT	PAPER NUMBER
1501	3

DATE MAILED: 02/25/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/742,080**

Applicant(s)  
**Wirth et al.**

Examiner  
**Margaret Glass**

Group Art Unit  
**1501**



☒ Responsive to communication(s) filed on Oct 31, 1996

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1 to 68 is/are pending in the application.

Of the above, claim(s) 14 to 26, 29 to 48 and 52 to 59 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1 to 13, 27, 28, 49 to 51 and 60 to 68 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 1 to 68 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. This application contains claims directed to the following patentably distinct species of the claimed invention: the various metal or metal oxide substrates as claimed in claims 7 to 11, the glass substrate as claimed in claim 39, and the silica gel substrate as claimed in claim 14.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 to 7, 12, 13, 27, 28, 49 to 51 and 60 to 68 are generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Donald Black on Feb. 21, 1997, a provisional election was made without traverse to prosecute the invention of the inorganic elements, or metal oxides thereof, of claims 6 and 7, with the exception of silicon oxide, claims 1 to 13, 27, 28, 49 to 51 and 60 to 68. Affirmation of this election must be made by applicant in responding to this office action. Claims 14 to 26, 29 to 48 and 52 to 59 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. This application is a

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divisional of US 08/455,875. In the parent application, silica gel and glass substrate species were examined. Thus, the species presently under consideration are those claimed with the exception of silica gel and glass substrate. Silicon oxide is presently excluded since this reads on silica.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 to 13, 27, 28, 49 to 51 and 60 to 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa.

Ogawa teaches structural surfaces covered with a monomolecular film. The monomolecular film is bonded to the surface of the substrate via Si-O bonds and appears to meet the claimed "monolayer of silicon atoms". Example 1 teaches that the substrate covered by this film can be a metal or metal oxide. It explicitly shows Al and Ti and in view of the general suggestion of any metal or metallic oxide, combined with that which is known in the art, other metal or metal oxide species such as Be and Z would have been obvious to the skilled artisan. Example 1 also teaches the silane surface agents used to form the monomolecular film on the surface of this substrate. This differs from the claimed invention in that Ogawa fails to expressly teach the use of two hydrocarbyl groups, on longer than the other.

Patentee teaches that any of many various silanes may be used to treat the metal substrate. In such a manner they imply the equivalence of these silanes by disclosing them as a homologous series and by giving their optional use. As such one having ordinary skill in the art would have been motivated by a reasonable expectation of success to use a combination of hydrocarbyl groups. Such a selection would appear to have been within routine expectation for the average

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artisan. It is prima facie obvious to substitute equivalents, motivation by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances.

The Examiner acknowledges that Ogawa is silent with regards to treating the substrate with a gas comprising silanes, applicants' claim 62. Patentee merely wants the substrate treated and the silane chemically bonded, apparently by any means available. Since it is known in the art to treat metal and metal oxide substrates with a silane gas, one having ordinary skill in the art would have been motivated by a reasonable expectation of success to use such a method to treat the substrates of Ogawa. As such this claimed limitation would appear to have been obvious over the prior art.

As noted supra, this application is a divisional of SN 08/455,875, now US 5,599,625. The Examiner suggests that applicants amend the instant claims in a manner consistent with that in the parent application. Such claims, drawn to the elected species and having the same product by process and density limitations as the claims in the parent application, would place the application in condition for allowance.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Glass whose telephone number is (703) 308-4334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Bleutge, can be reached at (703) 308-2363. The fax phone number for this Group is (703) 305-5246.

  
mwg

Feb. 21, 1997

  
Margaret Glass  
Primary Examiner  
Group 1500, Art Unit 1501